Presentation Type:
Poster Presentation

Interfacility Spread of OXA-23–Producing Carbapenem-Resistant *Acinetobacter*—Connecticut, 2018–2019

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Background: Carbapenem-resistant *Acinetobacter baumannii* (CRAB), a multidrug-resistant gram-negative bacterium, can cause difficult-to-treat infections with mortality in approximately half of CRAB cases. CRAB can spread among healthcare facilities after transfer of an infected or colonized patient. Strategies to limit CRAB spread include adherence to contact precautions, environmental cleaning with bleach, and screening to identify colonized patients. During July–September 2018, the Connecticut Department of Public Health (DPH) worked with an acute-care hospital (hospital A) to contain an outbreak of OXA-23–producing CRAB (OXA-23 is an enzyme that confers resistance to carbapenems). During November 2018–March 2019, statewide CRAB surveillance identified additional cases of related OXA-23–producing CRAB at other healthcare facilities. DPH, Connecticut State Public Health Laboratory (SPHL), and the Antibiotic Resistance Laboratory Network (ARLN) investigated to prevent additional cases. **Methods:** Since January 2017, CRAB isolates have been routinely sent to SPHL and ARLN for carbapenemase gene detection and whole-genome sequencing (WGS) to determine isolate relatedness. During November 2018–March 2019, DPH collected patient healthcare history for patients with CRAB isolates to identify outbreaks and provide assistance in infection control and prevention to healthcare facilities reporting CRAB cases. Beginning May 2019, DPH and ARLN offered facilities screening to identify patients colonized with OXA-23–producing CRAB. **Results:** Of 10 OXA-23–producing CRAB isolates reported to DPH during November 2018–March 2019, 3 were closely related to the 9 isolates from hospital A's outbreak by WGS (single-nucleotide polymorphism difference range, 1–16). One isolate was from a patient who had been admitted to hospital A during July 2018. All 3 patients with CRAB isolates shared a history of residence at long-term–care facility A (LTCF A). Two patients received a CRAB infection diagnosis upon admission to hospital B after transfer from LTCF A. Both LTCF A and hospital B performed environmental cleaning with bleach and placed CRAB-identified patients on contact precautions. LTCF A declined screening patients for CRAB, whereas hospitals B and C, which receive frequent transfers from LTCF A, screened all patients on admission from LTCF A. During May–September 2019, among 6 patients screened, 1 was colonized with OXA-23–producing CRAB and was placed on contact precautions. **Conclusions:** Transfer of patients who are infected or colonized with CRAB among hospitals and LTCFs can facilitate the regional spread of CRAB. Strategies for containing the spread of carbapenemase-producing organisms include adherence to contact precautions, colonization screening, interfacility communication, and collaboration with public health.

Funding: None
Disclosures: None
Doi:10.1017/ice.2020.887

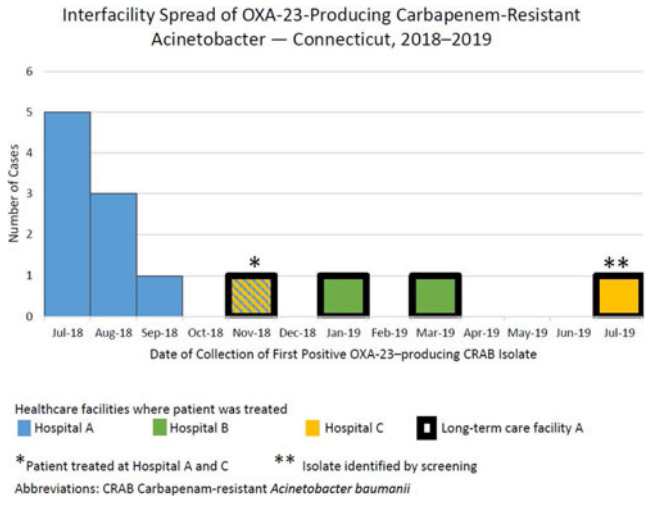

Fig. 1.

Presentation Type:
Poster Presentation

Intranasal Antiseptic and Universal Antiseptic Baths Are Effective in Reducing MRSA Acquisition in Extended-Care Facilities

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Background: Methicillin-resistant *Staphylococcus aureus* (MRSA) is a growing clinical problem in rehabilitation hospitals, where patients stay for extended periods for intensive rehabilitation therapy. In addition to cutaneous sites, the nares could be a source for nosocomial MRSA transmission. Decolonization of nasal and cutaneous reservoirs could reduce MRSA acquisition. We evaluated the effectiveness of topical intranasal octenidine gel, coupled with universal chlorhexidine baths, in reducing MRSA acquisition in an extended-care facility. **Methods:** We conducted a quasi-experimental before-and-after study from January 2013 to June 2019. All patients admitted to a 100-bed rehabilitation hospital specialized in stroke and trauma care in Singapore were screened for MRSA colonization on admission. Patients screened negative for MRSA were subsequently screened at discharge for MRSA acquisition. Screening swabs were obtained from the nares, axillae, and groin and were cultured on selective chromogenic agar. Patients who tested positive for MRSA from clinical samples collected >3 days after admission were also considered to have hospital-acquired MRSA. Universal chlorhexidine baths were implemented throughout the study period. Intranasal application of octenidine gel for MRSA colonizers for use for 5 days from admission was added to the hospital's protocol beginning in September 2017. An interrupted time series with segmented regression analysis was performed to evaluate the trends in MRSA acquisition before the intervention (January 2013–July 2017) and after the intervention (September 2017–June 2019) with intranasal octenidine. August 2017 was excluded from the analysis because the intervention commenced midmonth. **Results:** In total,